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FOLEY AND LARDNER LLP			HENDRICKSON, STUART L	
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/081,208

Filing Date: February 25, 2002

Appellant(s): MOCHIDA ET AL.

Stephen Maebius
For Appellant

MAILED
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GROUP 1700

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/13/07 appealing from the Office action mailed 10/24/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3961020	Seki	6-1976
5462908	Liang et al.	10-1995
4256728	Nishino et al.	3-1981
4831011	Oikawa et al.	5-1989

(9) Grounds of Rejection

Claims 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seki 3961020 taken with Oikawa et al. 4831011 and in view of Liang et al. 5462908.

Seki teaches in col. 2-3 especially removing NOx with ammonia over several packed beds of halogen-treated carbon. Seki teaches a variety of arrangements for the introduction of ammonia, and shows numerous valves. Seki does not explicitly teach the oxygen level of the carbon, or the fiber form.

Liang provides evidence that bromine treatment reduces the surface oxygen content- see col. 2. Arriving at the claimed oxygen level, if not inherently possessed, is an obvious expedient to optimize the bed activity. Oikawa teaches in col. 1 active carbon fiber as a sorbent; using this form is an obvious expedient to provide the active carbon desired by Seki.

In so far as Seki does not discuss the valve structure, the claimed arrangement is an obvious expedient to permit servicing one portion without exposing the whole apparatus to air, and also to permit multiple system use wherein the flow is diverted to a second system while the first is regenerated/repaired or depressurized. Essentially, the valve system of claims 25 and 27 is an obvious expedient to permit flexibility in how the system is used. It is noted that for processing ammonia containing gas, one inlet could satisfy both claim 23 elements C and D. It is also noted

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that placing extra inlets is an obvious expedient to serve multiple systems; duplication of parts is obvious (In re Harza 124 USPQ 378) absent a showing of unexpected results.

Claims 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishino et al. 4256728 taken with Oikawa et al. 4831011 and Liang et al.

Nishino teaches plural beds which can be active carbon. However, Nishino does not teach carbon which has the claimed oxygen level or the fiber form. Liang provides evidence that bromine treatment reduces the surface oxygen content- see col. 2. Arriving at the claimed oxygen level, if not inherently possessed, is an obvious expedient to optimize the bed activity.

Nishino differs in not having plural beds of the same type, however using more than one bed is an obvious expedient for complete capture of the pollutant of interest- see also In re Harza 124 USPQ 378. Using a 'packed' bed is an obvious expedient to optimize bed capacity and pressure drop; note In re Boesch 205 USPQ 215. Using a 'packed' bed is an obvious expedient to optimize bed capacity and pressure drop; note In re Boesch 205 USPQ 215. Nishino does not discuss the valve structure, however the claimed arrangement is an obvious expedient to permit servicing one portion without exposing the whole apparatus to air, and also to permit multiple system use wherein the flow is diverted to a second system while the first is regenerated or repaired or depressurized. Essentially, the valve system of claims 25 and 27 is an obvious expedient to permit flexibility in how the system is used. It is noted that for processing NH₃ containing gas, one inlet could satisfy both claim 23 elements C and D. It is also noted that placing extra inlets is an obvious expedient to serve multiple systems; in general, duplication of parts is obvious (Harza above) absent a showing of unexpected results. Oikawa teaches in col. 1 active carbon fiber; using this form is an obvious expedient to provide the active carbon desired by Nishino.

(10) Response to Argument

The main argument is that the active carbon of the references does not have the claimed oxygen content. However, it cannot be determined what the oxygen content is. The examiner

has provided evidence that it is possessed, due to the action of the bromine. The PTO does not have the facilities to conduct experiments; there is enough evidence of non-patentability so as to place the burden upon the appellant to show a patentable difference.

Concerning the fiber form of claim 24, the use of a fiber is obvious over the teaching of Oikawa, as explained in the rejections above.

Concerning the valves of claim 25, Seki fig. 3 shows a 6-valve system and multiple reactors. Seki teaches ammonia supply; it is axiomatic that the ammonia source would have a valve, so that the ammonia could be contained, stored and used. In other words, the feature 20 of Seki is evidence of ammonia inside a tank, sealed by a valve. Claim 25 part iii is a 'conditional limitation' and hence an option which is not required. And it does not alter the actual valve structure claimed. In other words, claim 25 part iii does not impart any patentability whatsoever. If there is any difference, then the claimed valve arrangement is an obvious expedient to be able to recycle the gas, to selectively regenerate the sorbent bed or perform other tasks routine in the art- see Seki col. 8-9.

Concerning the means-plus-function language of the claims, the present specification teaches ammonia introduced through a valve- it is vague and broad and encompasses any practical method of gas injection and implies a tank of gas connected to a pipe. Seki contains the same broad and vague means for introducing ammonia. No difference under any analysis (ie, 6th paragraph) is seen, let alone a patentable difference. The means of both Seki and the appellant are patentably indistinct and appear to be identical since they both introduce ammonia into a reactor. Nishino col. 2 line 59 teaches a gas tank for gas introduction. No patentable difference is seen in this mode of gas introduction for the same reasons.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

SLH
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PATENT EXAMINER

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